



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS TEXAS 75202-2733

July 1, 2000

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED AGENCIES AND PUBLIC GROUPS:

In accordance with the environmental review guidelines of the Council on Environmental Quality found at 40 Code of Federal Regulations (CFR) Part 1500 and the implementing environmental review procedures of the United States Environmental Protection Agency (EPA) found at 40 CFR Part 6 entitled ~~A~~Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act, @the EPA has performed an Environmental Assessment (EA) of the following proposed action to be funded through Economically Distressed Areas Program, Border Environmental Infrastructure Fund, and Colonia Wastewater Treatment Assistance Program grant/loan funds.

City of Laredo, Webb County, Texas - SH359 and Mines Road Area Colonias

The proposed project is to provide water and wastewater treatment service to the following 15 colonias in the two areas:

State Highway 359 Area:

Old Milwaukee	San Carlos Phase I
D-5 Acres	San Carlos Phase II
Los Altos	Ranchitos 359 East
Los Tanquecitos I	Laredo Ranchettes
Los Tanquecitos II	Pueblo Nuevo

Mines Road Area:

Los Corralitos
Ranchitos Penitas West
Los Minerales
Antonio Santos
Ranchitos IV - Los Minerales Annex

The population of the colonias in the State Highway 359 (SH359) project area is about 3,158, and about 960 in the Mines Road area. The proposed SH359 project is designed for an average daily wastewater flow of 0.425 million gallons per day (mgd) and a population of 4,257. The Mines Road project is designed for an average daily flow of 0.140 mgd and a population of 1,392. The Texas Natural Resource Conservation Commission (TNRCC) has indicated that the population and flow projections are reasonable for planning purposes and will be included in a forthcoming up-date to the State Water Quality Management Plan (WQMP). The city of Laredo is a designated management agency in the WQMP for wastewater collection and treatment within its sewer service area. Laredo also holds the current Certificate of Convenience and Necessity for all of the project areas.

The wastewater management improvements for the Mines Road area, to be funded through

Economically Distressed Areas Program (EDAP) grant/loan funds, include the construction of 240 septic tank/drainfield systems and closure of approximately 240 existing on-site facilities. However, because on-site systems have been determined to be a practicable alternative for the Mines Road area, under EDAP statutory requirements, only on-site wastewater management systems are eligible for EDAP funds. Therefore, the city of Laredo is applying for Border Environmental Infrastructure Fund (BEIF) funds from the North American Development Bank (NADBank) through Border Environment Cooperation Commission (BECC) certification to build, own and operate a new 0.125 mgd Mines Road centralized wastewater treatment plant (WWTP). The new WWTP would discharge into the Rio Grande below the confluence of Santa Isabel Creek in Segment 2304 of the Rio Grande Basin, and be designed and operated to meet the Texas Pollutant Discharge Elimination System (TPDES) permit effluent limitations. The city is applying for EDAP funding for on-site systems for the Mines Road area because of (1) the more immediate availability of EDAP and Colonia Wastewater Treatment Assistance Program (CWTAP); (2) a need to keep water and sewer service costs affordable; (3) uncertainty about the availability of BEIF funds; and (4) the city of Laredo's desire to proceed with improvements to living conditions in the colonias in the Mines Road area with the construction of a centralized treatment system.

Wastewater treatment service for the SH359 colonias area will be provided by extending the municipal system to the Southside WWTP. The Southside plant has adequate capacity to handle the present and projected increases in wastewater flows from the SH359 area and meet the TPDES permit limits of 20 mg/l BOD₅ and 20 mg/l TSS. Both WWTP will discharge to Rio Grande Segment 2304 and are expected to meet stream standards and be in conformance with the WQMP. All project elements are eligible for EDAP and CWTAP assistance.

<u>Total estimated cost for the proposed project without BEIF grant funding:</u>	<u>\$18,181,895</u>
State of Texas Economically Distressed Areas Program (EDAP) grant:	\$ 8,428,331
EPA Colonia Wastewater Treatment Assistance Program (CWTAP) grant:	\$ 6,891,589
EDAP Water and Wastewater Loan:	\$ 1,451,000
Webb County funds:	\$ 610,975
City of Laredo Cash on Hand:	\$ 800,000
 <u>Total estimated cost for the project with BEIF grant funding:</u>	 <u>\$23,361,262</u>
State of Texas Economically Distressed Areas Program (EDAP) grant:	\$ 8,428,331
EPA Colonia Wastewater Treatment Assistance Program (CWTAP) grant:	\$ 5,839,506
EDAP Water and Wastewater Loan:	\$ 1,451,000
NADBank BEIF Grant and Loan assistance:	\$ 6,231,450
Webb County funds:	\$ 610,975
City of Laredo Cash on Hand:	\$ 800,000

Water system improvements proposed for the Mines Road area include a 50,000-gallon storage tank, a 100 gallons per minute (gpm) booster pump station, and 97,900 linear feet of 8-inch to 10-inch water mains. Water system improvements for the SH359 area include a 200,000-gallon storage tank, a 250,000-gallon elevated storage tank, a 500 gpm booster pump station, and 156,506 linear feet of 8-inch to 12-inch water mains. Potable water for both the Mines Road and SH359 colonia project areas is provided from the city of Laredo's 60 mgd Jefferson Street Water Treatment Plant. The city's total combined water rights from the Rio Grande is 40,596 acre-feet/year, which is approximately 36.24 mgd on an average daily basis, and is held under Certificate of Adjudication No. 23-3997A. Approximately 658 acre-feet/year of Class A water

rights for the city of Laredo are to be funded through EDAP in compensation for the projected water demand of the Mines Road and SH359 colonias.

The city of Laredo is currently installing 11,000 linear feet of 16-inch water transmission line along SH359 to provide water service to the colonias project area. Funding provided to the city of Laredo for purchase of city water treatment capacity for the colonia connections is \$121,817 for 468,530 gallons, and \$739,338 for purchase of 345,485 gallons of wastewater treatment capacity. Webb County will pay for the cost of construction of wastewater collection system in Los Tanquecitos I and the water distribution system in Los Corralitos. These projects are treated as part of the greater EDAP Mines Road and SH359 project for the purposes of the environmental review.

Finding. The EPA has performed an independent Environmental Assessment (EA) of the EA conducted by the Texas Water Development Board (TWDB) based on a detailed review of the Facilities Engineering Plan, Environmental Information Documents, and other documentation. The EPA concurs with the TWDB's determination that the proposed actions are cost-effective and environmentally sound and is, therefore, issuing a Finding of No Significant Impact (FNSI). The proposed project is not a major Federal action significantly adversely affecting the quality of the human environment and preparation of an Environmental Impact Statement (EIS) is not warranted. Precautionary measures dealing with the project's potential relationship to cultural resources and threatened and endangered species, as detailed in the EA, will be applied to any subsequent EDAP, CWTAP and BECC financial assistance.

Comments regarding this preliminary decision not to prepare an EIS may be submitted to the U.S. Environmental Protection Agency, Office of Planning and Coordination (6EN-XP), 1445 Ross Avenue, Dallas, Texas 75202-2733. This preliminary decision and the FNSI will become final after the 30-day comment period expires if no new information is provided to alter this finding. No administrative action will be taken on this decision during the 30-day comment period. Copies of the EA and requests for review of the Administrative Record containing the information supporting this decision may be requested in writing at the above address, or by telephone at (214) 665-2258. The EA and FNSI document is also available through the Internet (URL) at <http://www.epa.gov>.

Responsible Official,

/S/ Jerry Clifford

for

Gregg A. Cooke

Regional Administrator

ENVIRONMENTAL ASSESSMENT
CITY OF LAREDO, WEBB COUNTY, TEXAS
SH359 AND MINES ROAD AREA COLONIAS
ECONOMICALLY DISTRESSED AREAS PROGRAM,
COLONIA WASTEWATER TREATMENT ASSISTANCE PROGRAM AND
NORTH AMERICAN DEVELOPMENT BANK PROJECT

I. BACKGROUND

The city of Laredo is located in Webb County, Texas, across the Rio Grande from Nuevo Laredo, Tamaulipas, Mexico, approximately midway between Del Rio and Brownsville. Laredo has undergone tremendous economic and population growth, precipitated by the North American Free Trade Agreement between the United States, Mexico and Canada. As a result of the rapid growth and lack of appropriate land use management, residential subdivisions without water or sewer have developed on the outskirts of Laredo. Some are densely settled while others have larger lots. The locations and facility needs of such colonias have been identified, and Webb County and the city of Laredo have moved to plan, design, and construct different sorts of public service infrastructure to improve living conditions in the colonias. Of highest priority to Laredo in this regard are the 15 colonias extending eastward from the southeast side of town along State Highway 359 (SH359), and the more scattered assortment of colonias in the Mines Road area, to the north. The Texas Department of Health (TDH) has investigated the 15 subdivisions and has concluded that a threat to public health and safety exists in those areas.

The SH359 colonia area has a population is 3,158 with an expected wastewater daily average of about 0.316 million gallons per day (mgd). The Mines Road colonias have a population of 960 with an expected average daily wastewater flow of about 0.096 mgd. The proposed SH359 project is designed for an average daily wastewater flow of 0.425 mgd and a population of 4,257. The proposed project for the Mines Road area is designed for an average daily flow of 0.140 mgd and a population of 1,392. The Texas Natural Resource Conservation Commission (TNRCC) has indicated that the population and flow projections are reasonable for planning purposes and will be included in a forthcoming up-date to the State Water Quality Management Plan (WQMP). The city of Laredo is a designated management agency in the WQMP for wastewater collection and treatment within its sewer service area. Laredo also holds the current Certificate of Convenience and Necessity for all of the project areas.

The engineering plan developed with Economically Distressed Areas Program (EDAP) funds calls for construction of a series of water supply and wastewater management facilities to alleviate the unsanitary conditions and inadequate water supplies in the SH359 and Mines Road areas. The Border Environment Cooperation Commission (BECC) has also begun a study of the same areas and will be assisting the city of Laredo in its application for grant funding from the Border Environmental Infrastructure Fund (BEIF) administered by the North American

Development Bank (NADBank).

II. PROJECT DESCRIPTION

The proposed project will provide water and sewer improvements to serve 787 existing households in the 15 colonias. Projections are for approximately 900 residential water and sewer connections by completion of construction, and 1,193 connections and a population of 5,649 by the year 2016. The 15 colonias to be served by the proposed project include:

<u>SH359 Area:</u>		<u>Mines Road Area:</u>
Old Milwaukee	San Carlos Phase I	Los Corralitos
D-5 Acres	San Carlos Phase II	Ranchitos Penitas West
Los Altos	Ranchitos 359 East	Los Minerales
Los Tanquecitos I	Laredo Ranchettes	Antonio Santos
Los Tanquecitos II	Pueblo Nuevo	Ranchitos IV - Los Minerales Annex

Water system improvements. Water system improvements proposed for the Mines Road area include a 50,000-gallon storage tank, a 100 gallons per minute (gpm) booster pump station, and 97,900 linear feet of 8-inch to 10-inch water mains. Water system improvements for the SH359 area include a 200,000-gallon storage tank, a 250,000-gallon elevated storage tank, a 500 gpm booster pump station, and 156,506 linear feet of 8-inch to 12-inch water mains. The city of Laredo is currently installing 11,000 linear feet of 16-inch water transmission line along SH359 to provide water service to the colonias project area. All project elements are eligible for EDAP and Colonia Wastewater Treatment Assistance Program (CWTAP) assistance.

Water for both the Mines Road and SH359 colonia project areas will be provided from the city of Laredo's 60 million gallons per day (mgd) Jefferson Street Water Treatment Plant. Laredo has a new reverse osmosis public water system in operation located on Mines Road adjacent to Santa Isabel Creek. The plant started operations about two years ago but does not have enough capacity for the number of connections that the city plans to hook up to the system. The city also has a combined total of 40,596 acre-feet per year (approximately 36.24 mgd) of water rights from the Rio Grande, and held under Certificate of Adjudication No. 23-3997A. Approximately 658 acre-feet per year of Class A water rights are to be funded through EDAP in compensation for the projected water demand from the two colonia areas.

Wastewater management improvements. Wastewater management improvements for the Mines Road area, to be funded through EDAP, include the construction of 240 septic tank/drainfield systems and closure of approximately 240 existing on-site facilities. Because of the more isolated situation of the Mines Road colonias, Laredo is applying for the NADBank funds to build, own and operate a new 0.125 mgd Mines Road wastewater treatment plant (WWTP). The plant will be designed and operated to meet anticipated Texas Pollution Discharge Elimination System (TPDES) permit limitations of 20 BOD₅ and 20 mg/l TSS. Construction of the conventional centralized system will include approximately 68,420 linear feet of 8-inch gravity lines, 11,550 linear feet of force main from 4 inches to 6 inches in diameter, three lift stations, and a 0.125 mgd package-type WWTP.

Wastewater treatment service for the SH359 area colonias will be provided by extending the municipal system to the Southside WWTP, and will include approximately 142,680 linear feet of gravity lines ranging in size from 8-inch to 15-inch, 13,700 linear feet of force main from three inches to six inches in diameter, and three lift stations. The Southside WWTP has adequate capacity to handle the present and projected increases in wastewater flows from the SH359 area. The Southside WWTP meets its TPDES permit limitations of 20 mg/l BOD₅ and 20 mg/l TSS. Both WWTPs will discharge to Rio Grande Segment 2304 below the confluence of Santa Isabel Creek and are expected to meet stream standards and be in conformance with the WQMP. All project elements are eligible for EDAP and CWTAP assistance.

Sludge. Construction of the Mines Road WWTP would generate an estimated 28 tons per year of sludge which will be transported to the city of Laredo's State-approved land disposal tract at the Southside WWTP in accordance with all applicable rules of the TDH and TNRCC permit WQ0010681-003.

III. PROJECT FUNDING

Total estimated cost for the proposed project without BEIF grant funding:	\$18,181,895
State of Texas Economically Distressed Areas Program (EDAP) grant:	\$ 8,428,331
EPA Colonia Wastewater Treatment Assistance Program (CWTAP) grant:	\$ 6,891,589
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The project is proposed to be funded through the EDAP and the U. S. Environmental Protection Agency (EPA) financed CWTAP, both administered by the Texas Water Development Board (TWDB). However, under the statutory requirements of EDAP, only on-site wastewater management system projects are eligible for EDAP grant/loan funding because such systems have been determined to be a practicable alternative for the Mines Road area. Laredo is prepared to construct the entire project, including the installation of the on-site wastewater management systems in the Mines Road colonias area, but is applying for EDAP funding for construction of on-site systems for the Mines Road colonias area because of: (1) the more immediate availability of EDAP and CWTAP funds; (2) the city of Laredo's need to keep the costs of water and sewer services affordable for area residents; (3) uncertainty about the availability of BEIF funds; and (4) the city of Laredo's desire to construct a conventional centralized sewerage system for the area. Laredo is applying for BEIF funding assistance for construction of the centralized system. BEIF fund would also be used to install approximately 30,100 linear feet of 16-inch water transmission line in the SH359 area.

VI. RECOMMENDATION.

The proposed construction of on-site wastewater management systems for the Mines Road area and extension of the municipal sewerage system into the SH359 area are the most cost-effective and environmentally compatible alternatives. Obtaining the BEIF funds would enable Laredo to construct the Mines Road area centralized sewerage system and an associated WWTP. Water and sewer pipeline alignments have been selected with consideration given to minimizing impacts to vegetation, avoidance of potentially significant archeological sites, maximum use of elevation changes to minimize the number of existing lift stations and associated pumping costs, and the acquisition of a minimum number of new easements.

The cost estimates do not include the cost of the installation of indoor plumbing in an estimated 369 residences in both the SH359 and Mines Road areas. The city of Laredo will be funded \$121,817 for 468,530 gallons of water treatment capacity for the colonias, and \$739,338 for 345,485 gallons of wastewater treatment capacity for the colonias. Webb County will pay for the cost of construction of a wastewater collection system in Los Tanquecitos I and the water distribution system in Los Corralitos. For the purposes of this Environmental Assessment (EA), these projects are treated as part of the greater EDAP Mines Road/SH359 project.

The EPA has performed an independent Environmental Assessment (EA) of the EA conducted by the TWDB based on a detailed review of the Facilities Engineering Plan, Environmental Information Documents, and other available information. The EPA concurs with the TWDB's determination that the proposed actions are cost-effective and environmentally sound and is, therefore, issuing a Finding of No Significant Impact (FNSI). The proposed project is not a major Federal action significantly adversely affecting the quality of the human environment and preparation of an Environmental Impact Statement (EIS) is not warranted. Precautionary measures dealing with the project's potential relationship to cultural resources and threatened and endangered species, as detailed in the EA, will be applied to any subsequent EDAP, CWTAP and BECC financial assistance.

V. ALTERNATIVES

Alternatives Available to the EPA.

Approve the Funding for the Project as Proposed. EPA can recommend approval of the grant funding for the proposed purpose.

Funding of a Modified Project. Information received during the EA process could result in the identification of significant adverse impacts that require mitigation through modification of the proposed action. Modification of the project to mitigate the impacts may allow the EPA to accept the project as modified and recommend approval of the grant funding.

No Action. A determination that the project as proposed could result in potentially significant

adverse impacts to the environment that cannot be satisfactorily mitigated would preclude a recommendation of approval of the grant funding. Instead, an EIS would be recommended to evaluate the potentially significant impacts. The EIS process includes a scoping meeting to identify critical facts and issues, a Draft EIS, a public comment period on the Draft EIS, a public hearing on the Draft EIS, the Final EIS, a public comment period on the Final EIS, and a Record of Decision.

Alternatives Considered by the Applicant.

Important factors influencing the selection and evaluation of water supply and wastewater management alternatives include availability of existing city facilities and water and wastewater treatment capacities, geographic pattern of existing and projected residential development, the anticipated continued pressure for municipal services for best management of rapidly expanding populations, overall cost and funding program eligibility, the availability of land for different sewer and water system components, operation and maintenance requirements, environmental compatibility, environmental regulations, public acceptance, and system reliability.

No Action Alternative. The no action alternative was eliminated because it would allow the existing inadequate water supply and wastewater disposal systems and associated public health and other environmental hazards to continue. Population growth would exacerbate the frequency and severity of problems, as well as the health risks and environmental pollution problems in the Mines Road and SH359 area colonias. Also, the no action alternative would not accommodate the projected growth in the Mines Road and SH359 area colonias.

Wastewater Treatment Plant Site Alternatives. Four alternative four- to five-acre WWTP sites were considered for the Mines Road area. Although separately situated, all are located for proximity to logical discharge points near the confluence of Santa Isabel Creek and the Rio Grande. Alternative tract No. 4 has been selected for use should the centralized sewerage system be constructed. The plant site is located outside the 100-year floodplain, in proximity to the Los Minerales subdivision, but is not located in close proximity to existing residences. The site is located on a portion of a potentially significant prehistoric archeological site (41WB565). However, project planners are confident that significant parts of the cultural resource will be avoided as explained in the EA.

Wastewater Collection System Alternatives. Alternative centralized wastewater collection systems evaluated included pressure sewers, gravity sewers, small diameter gravity systems, and conventional gravity collection systems. The conventional gravity collection system was selected as the preferred alternative because of the city's concern for compatibility with the operation and maintenance requirements of the existing city sewerage system.

Sludge Disposal Alternatives. Different alternatives were considered for disposal of the estimated 28 tons per year of sludge that would be generated by the Mines Road WWTP, including transportation to approved landfills and land disposal at approved land application and dedicated disposal sites, such as the one at the Southside WWTP

Construction of the centralized sewerage system for the Mines Road area would allow Laredo to consider different wastewater treatment alternatives, including the complete mix, extended aeration activated sludge process (package-type plant), facultative lagoon/stabilization

ponds treatment plant, and a combination lagoon/subsurface treatment system. Land application was rejected due to limited availability and cost of suitable land.

Public Water Supply Alternatives. The city of Laredo is currently evaluating proposals for a project to develop a secondary source of water from the Carrizo Aquifer with alternative potential well fields north of the city in northwestern Webb County and in Dimmit County. Another suggested possibility is the piping of ground water from the Edwards Aquifer from wells in Kinney County. While a second source of public water supply may help ensure the availability of sufficient water for the city of Laredo's foreseeable future, the most practical water supply alternative for the colonias project is to extend the city's municipal water system into the subdivisions.

VI. ENVIRONMENTAL SETTING, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

Land Resources.

Topography and Geology. The Mines Road and SH359 planning areas are located primarily on rolling upland drained by upland tributaries to the Rio Grande. The SH359 area has been substantially altered by roadways, a railroad grade, and urban and suburban development. The Mines Road area is more isolated and rural in nature, but populated with residential neighborhoods. The planning area ranges in elevation from about 400 feet above mean sea level (msl) along the Rio Grande at its confluence with Santa Isabel Creek near Los Minerales to about 610 feet above msl at the eastern-most SH359 colonia, Pueblo Nuevo located furthest away from the Rio Grande. The Mines Road area is underlain by the Eocene-age El Pico Clay Formation of clays, sandstone, and coal. The SH359 area is underlain by Eocene Laredo and Yegua formations of sandstones and clays. Holocene alluvial deposits occur as narrow bands paralleling the larger intermittent and perennial streams.

Soils. Most of the residential lots in the Mines Road area are large enough to enable the design of specially engineered on-site systems, even if cluster systems are deemed more practical in a few areas. The soils vary greatly depending upon topography and drainage patterns, with the predominant soils being loamy silts, sandy clays, and clay loams of the Copita-Verick unit, and the clayey and loamy soils of the Copita-Verick and Catarina-Maverick-Moglia. The loamy and clayey soils of the Mines Road area are classified as moderate to severe in terms of limitations for the reliable functioning of conventional septic tank drain fields.

Prime Farmland. In their native state, the soils of the planning area are not classified as prime agricultural land. The proposed water and sewerage system project, and future development accommodated by it, should not affect environmentally significant agricultural lands.

Water Resources.

Ground Water. The Carrizo-Wilcox Aquifer is the principal water-bearing formation underlying the Laredo area. The city obtains its water supplies from the Rio Grande. The

proposed sewerage system improvements project should not directly or indirectly significantly affect ground water quality or quantity. The extension of the Laredo municipal sewer system into the SH359 colonias area, and the installation of new on-site systems in the Mines Road area (or construction of a new sewer system should the grant funds be secured), will eliminate malfunctioning and improperly designed on-site systems as potential sources of groundwater contamination.

Surface Water. Surface waters in the area are the Rio Grande, Santa Isabel Creek, and various intermittent and ephemeral streams in the Mines Road area, and Chacon Creek and upland intermittent and ephemeral tributaries in the SH359 area. The city of Laredo has adopted and is implementing a water conservation plan. Sufficient surface water rights from the Rio Grande and treatment capacity to support water and sewer services to the SH359 and Mines Road colonia areas are anticipated to be available for the life of the project.

The project will eliminate the inadequate on-site wastewater disposal systems in the SH359 and Mines Road areas as sources of surface water contamination. Should the grant funding for the centralized sewer system for the Mines Road area be secured, the project will involve more pipeline crossings of upland streams. However, construction of the project will not alter the stream courses and should not create significant siltation or sedimentation problems. Bottom contours of the drainage ways will be restored immediately following construction. Because the project will disturb more than five acres, an EPA National Pollutant Discharge Elimination System (NPDES) General Permit for storm water will be required and a Storm water Pollution Prevention Plan will be developed and implemented. The Mines Road WWTP would be designed to meet the effluent limits and stream standards for Segment 2304 of the Rio Grande Basin, which is classified as water quality limited due to violations of water quality standards. By-passing will not be necessary during project construction.

Air Resources.

The climate of the Webb County area is semi-arid, with relatively high summer daytime temperatures and mild winters. Rainfall averages about 18.63 inches annually. Prevailing winds are from the southeast. Although air quality is effected by the modern urbanization of the city of Laredo and Nuevo Laredo, Webb County is in attainment with respect to the National Ambient Air Quality Standards (NAAQS) sulfur dioxide, carbon monoxide, and nitrogen dioxide. Particulate matter and ozone are unclassified. The proposed project should not create major air quality problems. Dust will be controlled by water sprinkling during construction. The existing South Laredo WWTP site is well established as part of the land use pattern of the area. Should the necessary funds to construct a conventional centralized sewerage system be obtained, the new Mines Road area package-type WWTP will be located at on the southern edge of the Ranchitos IV - Los Minerales subdivision.

Odors. The project facilities should not create significant odor problems. The project will eliminate existing malfunctioning and inadequately designed on-site wastewater disposal systems as sources of odor nuisances in the Mines Road and SH359 areas.

Floodplain Management.

Floodplains in the SH359 area are upland drainage tributaries to Chacon Creek, which flow directly to the Rio Grande. Santa Isabel Creek and its upland tributaries drain the Mines Road area. The occurrence of floodplains and wetlands was taken into consideration during the planning phase of the water and sewerage systems. The systems are being designed to avoid construction in floodplain and wetland areas to the extent practicable. However, some scattered areas unavoidably occur in 100-year floodplains, including portions of Ranchitos IV-Los Minerales Annex, Los Minerales, Ranchitos Penitas West, Los Corralitos, and Los Tanquecitos I. The sewer lines serving the SH359 colonias and, if selected instead of on-site systems, some sewer lines in the Mines Road area will necessarily be routed through 100-year floodplains but will be designed and constructed in a manner to minimize infiltration of flood waters and discharges from the pipeline into flood waters. The three lift stations which must be located in floodplains will also be protected from inflow and from discharge into floodwaters.

Webb County participates in the National Flood Insurance Program and has adopted Model Subdivision Regulations which prohibit development within the floodplains and require all new developments to provide basic infrastructure. A floodplain management notice has been circulated to the appropriate state and federal agencies. The use of on-site wastewater management systems for the Mines Road area will provide no reserve capacity for new development in floodplains, while the construction of a conventional centralized sewerage system will provide some capacity for new development which could occur in floodplains if not controlled.

The International Boundary and Water Commission (IBWC) has commented that the only structure which would likely require a IBWC permit would be the discharge outfall from the Mines Road WWTP, which the IBWC acknowledges will only be constructed if sufficient grant funding is obtained from the BEIF. The IBWC concludes that no negative effects from this project should occur to the international boundary or the passage of flows, but requests that TNRCC regulations be followed not only for the construction and operation of the on-site wastewater management systems, but also for the abandonment of existing, inadequate on-site systems. As a matter of standard procedure, the TWDB and the TNRCC will ensure that construction and closure of on-site systems comply with TNRCC requirements. Plans are underway for the Laredo Health Department to become designated by the TNRCC as the On-site Sewage Facilities agent for the Mines Road area colonias, even if sufficient BEIF funds become available to enable Laredo to construct the centralized sewerage system for the Mines Road area. Should the BEIF funds become available and the centralized sewer system and treatment plant designed, the IBWC will be consulted and, if necessary, IBWC authorization will be obtained for construction of the new outfall structures.

To ensure that protection of the natural beneficial functions of floodplains and associated wetlands, as well as the need to minimize potential flood hazard to life and property, the project will be subject to the conditions:

- a. The grant assistance recipient agrees that no wastewater generated by development located in the floodplain shall be treated or transported by the project facilities for a

period of 50 years. This restriction does not apply to development existing prior to the issuance of the Finding of No Significant Impact for this project;

- b. The recipient agrees to adopt and enforce suitable ordinances and implementing procedures for effective local administration of this floodplain service area restriction. On application from the recipient's governing body and after considering all relevant information on a proposed development's effects on the natural functions and values of the affected floodplain, the EPA Regional Administrator may waive the service area restriction in individual cases; and,
- c. EPA and the recipient intend that this floodplain service area restriction shall benefit any person, organization or entity possessing an interest in preservation of the natural environment in the 100-year floodplain subject to this restriction. Any such beneficiary may seek enforcement of the restriction against the recipient or its successor in a court of competent jurisdiction if notice of the intent to seek enforcement is first given the recipient and EPA Region 6 and neither entity initiates corrective action within 90 days of receiving such notice.

Wetland Protection.

Wetlands in the planning area are restricted primarily to the narrow riparian zones of Santa Isabel Creek, the long narrow upland drainages in the Mines Road area, Chacon Creek and long narrow upland drainages in the SH359 area, scattered man-made impoundments (primarily stock ponds), and the Rio Grande in the Mines Road area. The effluent outfall pipeline from the new Mines Road WWTP site will be routed to avoid wetlands between the plant site and the Rio Grande. There will be no net loss of wetlands as a direct result of the project. Although it is anticipated that a nationwide permit will apply to the project and that the project will not adversely affect jurisdictional wetlands or waters of the United States, additional consultation with the U.S. Army Corps of Engineers (COE) will be necessary during the project design period to enable the COE to determine the permit conditions that will be applied, and the mitigative measures that may be needed, if necessary.

The EDAP and CWTAP financial assistance to the city of Laredo for the Mines Road/SH359 project will be conditioned to require that appropriate coordination will be made with the COE prior to approval of project plans and specifications.

Biotic Resources.

Flora. Webb County is located in the Tamaulipan Biotic Province and the South Texas Plains vegetational area. Upland areas support a rich tapestry of south Texas chaparral. The vegetation of the undeveloped and uncleared parts of the SH359 and Mines Road project areas can be characterized as brush country, with variably dense scrub ranging in height from four to ten feet. Mesquite and prickly pear are common along most roadways. Blackbrush, whitebrush, guajillo, huisache, bluewood condalia, and Spanish dagger are common locally. Understory vegetation is

characteristically sparse. Along major drainages, Texas sugarberry, desert hackberry, cedar elm, and retama occur. Grasses include bristlegrass, paspalums, windmill grass, sandbur, buffalograss, and buffelgrass.

Fauna. The wildlife of Tamaulipan Biotic Province includes some 61 species of mammals, 36 species of snakes, 19 lizards, two land turtles, three newts and salamanders, and 19 frogs and toads. Bird life is also diverse, including as many as 188 species documented in the Chaparral Wildlife Management Area in Dimmit and La Salle counties. The undeveloped brush land parts of the area may provide suitable habitat for the endangered ocelot, a federally listed species. Many of these areas already have been encroached upon by development and the gradual outward spread of development should not have significant adverse effects upon the ocelot or its potential habitat. Most of the uplands and upland slopes around these suburban communities that have not been substantially altered by human activities have been used as pasture land.

Endangered Species.

The U.S. Fish and Wildlife Service (FWS) has commented that Federally listed species are not likely to be impacted by the proposed project action if its recommendations of its January 31, 2000, comment letter are fully addressed, including:

- a. survey by a qualified biologist of project areas which will impact Maverick-Catarina soils;
- b. supervision by the biologist of construction, as necessary to ensure that taking of endangered plants will be avoided;
- c. sensitive areas will be flagged so that the construction contractor(s) will know where not to work; and,
- d. removal following construction of the flagging marking any identified endangered plant populations

The Texas Parks and Wildlife Department (TPWD) has commented that a search of the Texas Biological and Conservation Data System (BCD) revealed presently known occurrence of rare species in the general vicinity of the project, including the Rio Grande shiner and the Rio Grande darter, the reticulate collared lizard, and four protected plant species. However, the project should not affect any of these species. As a provision of TWDB financial assistance for the Mines Road/SH359 EDAP and CWTAP project, the applicant will be required to stop construction and notify the TWDB and the EPA immediately if threatened or endangered species are encountered during construction. The TWDB and EPA will then take measures in accordance with the Endangered Species Act of 1973, as amended. In its comment letter of March 3, 2000, the TPWD provides an attachment, "Texas Parks and Wildlife Department Guidelines for Construction and Clearing within Riparian Areas."

A biological survey was conducted of project element locations in the SH359 area because an occurrence of the federally protected *Johnson's frankenia* plant species was reported by the TPWD in the Los Tanquecitos I and Los Altos colonias. *Johnson's frankenia* is found on Maverick association soils, primarily the Maverick-Canterina soil complex in Webb County, and

these soils exist in the SH359 colonias area. The survey focused on all construction areas and found no occurrences of Johnson's frankenia in the accessible areas surveyed. To ensure that plants of this species reported to be growing in two of the SH359 colonias, all construction will be confined to developed rights-of-way and areas where Johnson's frankenia are absent. A qualified biologist will be retained to inspect the project areas and help ensure that the protected species will be avoided.

The TPWD expressed concern that the project be designed to avoid to the extent possible construction in riparian areas and thornbrush habitats. The project construction will be confined primarily to previously disturbed and cleared areas and should not affect sensitive habitat areas. Because the colonia project areas have already been substantially developed to the extent that natural habitats no longer exist, the project will not promote development in currently undeveloped areas. It appears unlikely that the project will have direct or indirect adverse impacts on protected animal species or their habitats.

The EDAP and CWTAP financial assistance to the city of Laredo for the Mines Road/SH359 project will be conditioned to require compliance with these recommendations and will require that all design and construction conform to these guidelines.

Cultural Resources.

The area of southwest Texas has been inhabited for thousands of years and hundreds of prehistoric and historic archeological sites have been recorded in Webb County. Founded in the mid-18th century, Laredo became a critical international border community by the mid-19th century and rapidly developed into an important trade and transportation center by the start of the 20th century. The population of the city of Laredo has boomed in recent decades, as has the suburban development of outlying areas.

Because most of the proposed SH359 and Mines Road project construction will affect already disturbed areas, the potential for adversely affecting significant archeological or historical resources is low. Construction of on-site wastewater management systems for the Mines Road colonias would be expected to have less potential for adversely affecting significant cultural resources than the construction of the WWTP. Based upon archeological surveys of the Mines Road and SH359 EDAP/CWTAP project areas, the State Historic Preservation Officer (SHPO) has concurred with the project archeologist that some 44 prehistoric archeological sites found in the general project areas are not eligible for nomination to the National Register of Historic Places or as State Archeological Landmarks. Furthermore, the SHPO concurs that nine other sites are potentially significant (41WB439, 41WB451, 41WB414, 41WB443, 41WB448, 41WB449, 41WB450, 41WB452, and 41WB463) but are located outside of the area of potential effect and must be avoided. The SHPO concurs with the recommendation that one prehistoric archeological site, 41WB439, which is located in a project construction area, will be reinspected archeologically prior to construction. Sensitive areas will be protected during construction and prehistoric archeological site, 41WB565, which is located partly within Mines Road area WWTP Site #4 must be tested during the design phase of the project to determine its National Register and State Archeological Landmark eligibility. If determined to be eligible, the site must be

avoided or impacts to the cultural resource appropriately mitigated.

The grant funding for the Mines Road/SH359 project will be conditioned to require that the EDAP/CWTAP assistance applicant will take these measures for the management of the archeological sites consistent with the provisions agreed to by the SHPO. As a means of ensuring that the project, as defined during engineering design, will not adversely affect significant cultural resources, the SHPO will be provided an opportunity to review and comment on the final draft plans and specifications for the Mines Road area project elements.

Furthermore, as a provision of TWDB and EPA financial assistance, the applicant will be required to stop construction and notify the TWDB and EPA immediately if archeological features happen to be encountered during construction. The TWDB and EPA will then proceed in accordance with the regulations of the Advisory Council on Historic Preservation (36 CFR Part 800).

Socio-economics and Environmental Justice.

The intent of the EDAP and CWTAP is to relieve unhealthy living conditions in low income and minority communities created by the lack of properly designed and constructed water supply and wastewater management facilities. The facility planning was commissioned to develop a cost-effective, environmentally sound means of eliminating the health hazards and potential sources of ground water and surface water contamination in the Mines Road and SH359 colonias areas. In accordance with Executive Order 12898 on Environmental Justice (EJ), a basic analysis was performed on the potential environmental impacts to low-income and minority communities to develop an EJ index for the proposed project areas.

The EPA defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The goal of fair treatment is not to shift risks among populations, but to identify potential disproportionately high and adverse human health and environmental effects on minority populations and low income populations and identify alternatives to mitigate those impacts.

The EJ Methodology analyzes 1 square mile and 50 square mile geographic areas around each project site (See Figures 3 - 8). The EJ index indicators range from 1 where the factors affecting minorities are considered to be in balance when compared to the state average, to 100 where the minorities are considered to be greatly unbalanced when compared to the state average. The analysis is based on the percentage of minority people, the percentage of economically distressed households earning less than \$15,000 per year, and the population within a one-half and four mile radius of the site in comparison with the percentage from the state. The index for both the 1 square mile radius and the 50 square mile area around the Mines Road project area was calculated at A10", while the index for both the 1 square mile radius and the 50 square mile area around the SH359 project area was calculated at A25".

The site for the new WWTP, which would be constructed if NADBank BEIF funding becomes available, was chosen with due consideration given to the various environmental

factors, including proximity to residential areas. Community involvement in the environmental process has been encouraged through surveys conducted to determine the needs and wishes of community residents, and a properly advertized and documented formal public hearing provided the affected community with the opportunity to comment on the proposed projects.

The proposed sewerage system construction project does not pose a disproportionate risk. There should be no adverse impacts which are considered disproportionate to populations based upon ethnicity or income. Because the project will not result in the relocation of households or significant changes in land uses and land values and because the project area income and demography are consistent with the region, the project will not disproportionately impact minority or low-income populations. The proposed project may stimulate growth in the area by providing a wastewater infrastructure for residential and industrial development providing additional employment opportunities. The colonias in the Mines Road and SH359 project areas are small and unincorporated with an agrarian economy. The planned facilities will serve a minority community that is economically disadvantaged. No social inequity will result from the proposed action. It is projected that the project will result in an average monthly sewer bill of about \$20.08 and an average monthly water bill of \$17.10 to the typical residential customer, in line with the in-city water and sewer services rate structure. The city of Laredo and Webb County are investigating sources of grant funding for the connections and plumbing installation so that the costs to the residents of the 15 subdivisions will be minimal.

Cross-border Impacts.

The primary adverse effects beyond the national boundary are limited to the possible periodic odor excursions across the border from the wastewater treatment plant, particularly during abnormal weather conditions. These events will be insignificant, infrequent and of short duration, and will be attenuated primarily by the distance between the source plants and the sparsely populated areas across the border. Of significant benefit to the environment is the improved quality of the wastewater after treatment which will not have the same potential to be a source of odors. Other beneficial impacts expected from construction of the projects are the increased ground water protection and the reduction in potential health vectors and communicable diseases through the elimination of the use of septic systems and privies.

Cumulative Impacts.

No cumulative impacts have been identified that would result from the proposed Mines Road and SH359 water system and sewerage system projects in combination with other ongoing actions at this time or within the reasonably foreseeable future. The water and sewer system improvements currently being undertaken by the city of Laredo and Webb County can be viewed as an important part of the cooperative effort to improve living conditions in the Mines Road and SH359 neighborhoods. Water and sewerage system operation and maintenance requirements should not be burdensome, particularly when balanced against the benefits to the human environment which are expected to result from the proposed BECC and EDAP/CWTAP project.

The project, in combination with other water and sewer projects being financed with EDAP, CWTAP and other sources, cumulatively accommodate the continued use of adequate but limited water resources. However, the uses are improved from the past from the standpoint of public health and appropriateness of use, and water conservation is strongly encouraged. Webb County has adopted and actively enforces regulation of new subdivision development where water supply and wastewater management are concerned.

VII. UNAVOIDABLE ADVERSE EFFECTS.

No significant adverse impacts on natural resources, water, wastewater, and other community infrastructure such as public schools, emergency medical care, public safety, recreation or transportation are expected to result from the direct, secondary or cumulative effects of the operational facility. Potential construction-related impacts to the daily activities of the planning area are amenable to standard precautionary and mitigative measures. The project will not involve the use of herbicides, defoliant, blasting, or burning. Construction activities will comply with Occupational Safety and Health Administration standards and with State requirements for trench safety. Appropriate measures will be taken to minimize traffic disruption and construction hazards.

VIII. RELATIONSHIP BETWEEN LOCAL, SHORT TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE/ENHANCEMENT OF LONG TERM BENEFICIAL USES.

The colonia project areas are primarily residential. If the proposed sewer improvements project has any appreciable impact upon land values in the area, it will be to improve them. No culturally sensitive or special recreation areas are located near the project sites. The project should not significantly affect land uses. Existing rights-of-way and existing public easements are available for almost all of the project components. Only the sites for the possible new Mines Road area WWTP, lift stations, water storage facilities, and some easements will have to be acquired. The acquisition of these is not expected to become controversial. Construction and operation of the proposed system will result in benefits to the health and economy of the area. In the short term, inconveniences will include the generation of dust and sedimentation from the disturbance of the area from trenching of streets and the connecting pathways to the treatment plant. However, the long term beneficial uses of the environment will result in better social and community setting because of the correction of a public health and safety hazard.

There are no unacceptable short or long term impacts to sensitive habitat, jurisdictional wetlands, or endangered or threatened species of plants, mammals, birds, reptiles, amphibians, and fishes expected as a result of this project. Therefore, no mitigation action is proposed. No other local, state, or federal projects are planned or underway in the project area.

IX. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES.

The only irreversibly and irretrievably committed resources associated with this project

are the labor, materials, machinery wear, monies spent, and energy used for construction and operation of the facility.

X. COORDINATION AND PUBLIC PARTICIPATION

The proposed project is consistent with local, regional, and statewide planning. The TWDB conducted a properly advertized formal public hearing on April 18, 2000. Notice of the hearing was published in the Laredo Morning Times on March 17 and March 24, 2000. No written or verbal comments were received during the public participation process. The project has been endorsed by the Laredo City Council and no opposition was expressed by citizens or others during the public participation process.

Coordination with the appropriate government agencies has been conducted, including circulation of a floodplain management notice pursuant to Executive Order 11988, and all comments have been addressed. Copies of this EA are being provided to the following agencies for their final review and comments, if any. Interested parties may request a copy of the EA in writing from the EPA, Office of Planning and Coordination (6EN-XP), 1445 Ross Avenue, Dallas, Texas 75202-2733, or by telephone at (214) 665-2258.

U.S. Army Corps of Engineers - Construction Operation Division - Regulatory Office

U.S. Natural Resource Conservation Service; District Conservationist

U.S. Fish and Wildlife Service - Ecological Services

Federal Emergency Management Agency

International Boundary and Water Commission

Texas Parks and Wildlife Department

Texas Historical Commission, State Historical Preservation Officer

Texas Natural Resource Conservation Commission

City of Laredo, Fernando Roman, P.E., Director of Public Works

Border Environmental Cooperation Commission

Ignacio Madera, Jr., Director,

Border Project Management Division, Texas Water Development Board

XI. MAPS, TABLES AND COMMENT LETTERS

XII. REFERENCES

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